

**CLAIMS**

1. An encapsulated probiotic in which one or more probiotic microorganisms are dispersed
  - 5 a) in an aqueous suspension of a protein and a carbohydrate
  - b) in an oil in water emulsion of a film forming protein and a carbohydrate and a fat, or
  - c) in an oil which is subsequently dispersed in a film forming protein and a carbohydrate
- 10 2. An encapsulated probiotic as claimed in claim 1 in which the carbohydrate contains a reducing sugar group.
- 15 3. An encapsulated probiotic microorganism as claimed in claim 1 or 2 in which one or more prebiotic materials are mixed with the probiotic microorganisms.
- 20 4. An encapsulated probiotic microorganism as claimed in claim 1 or 2 in which the carbohydrate in the film forming composition is a prebiotic carbohydrate.
5. An encapsulated probiotic microorganism as claimed in claim 1 in which the protein is casein or whey protein.
- 25 6. An encapsulated probiotic microorganism as claimed in claim 1 or 2 in which the carbohydrate is a resistant starch or a high amylose starch.
7. An encapsulated probiotic bacteria as claimed in claim 2 where the protein and carbohydrate is heat processed
- 30 8. An encapsulated probiotic bacteria as claimed in claim 2 where the protein and carbohydrate is heat processed in the presence of an oil or fat prior to addition of the probiotic bacteria.

9. A probiotic bacteria formulation in claim 3 where the starch is processed by heating and/or microfluidisation.
- 5 10. An encapsulated probiotic microorganism as claimed in claim 1 which is spray dried or freeze dried to form a powder.
- 10 11. An encapsulated probiotic microorganism as claimed in claim 1 in which the probiotic microorganism is selected from bifido bacteria, lactobacilli, saccharomyces, lactococci, streptococci and propionibacteria.
12. A probiotic powder consisting of a probiotic bacteria selected from bifido bacteria, lactobacilli, saccharomyces, lactococci, streptococci and propionibacteria encapsulated in a film forming mixture of casein or whey protein and an oligosaccharide.
- 15 13. A probiotic powder as claimed in claim 12 in which the film forming mixture has been heated to form Maillard reaction products between the oligosaccharide and the casein or whey protein.
- 20 14. A probiotic powder as claimed in claim 12 in which the probiotic bacteria is a liquid probiotic concentrate
15. A probiotic powder as claimed in claim 12 in which the probiotic bacteria is freeze dried.
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